Further notes on the genus *Stenaelurillus*Simon, 1885 (Araneae, Salticidae) in Africa with descriptions of eight new species

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ABSTRACT

Eight new species of *Stenaelurillus* Simon, 1885 from Africa are described: *S. furcatus* n. sp. (σ , Namibia), S. *kavango* n. sp. (φ , Namibia), S. *latibulbis* n. sp. (σ , Congo), *S. modestus* n. sp. (σ , South Africa), *S. pecten* n. sp. (σ , Botswana, Zambia), *S. specularis* n. sp. (σ , Malawi), *S. sudanicus* n. sp. (σ , Sudan), *S. zambiensis* n. sp. (σ , Zambia, Zimbabwe). *Stenaelurillus cristatus* Wesołowska & Russell-Smith, 2000 is synonymised with *S. hirsutus* Lessert, 1927. Name of *S. giovae* Caporiacco, 1936 is recognised as *nomen dubium*. Redescriptions of *S. albopunctatus* Caporiacco, 1949, *S. hirsutus* and *S. uniguttatus* Lessert, 1925 are provided. New distributional data for some species are given.

KEY WORDS jumping spiders, Stenaelurillus, Africa.

Stenaelurillus, Africa, new synonyms, new species.

RÉSUMÉ

Notes approfondies sur le genre Stenaelurillus Simon, 1885 (Araneae, Salticidae) d'Afrique et description de huit espèces.

Huit nouvelles espèces de *Stenaelurillus* Simon, 1885 d'Afrique sont décrites : *S. furcatus* n. sp. (σ φ , Namibia), S. *kavango* n. sp. (φ , Namibia), S. *latibulbis* n. sp. (σ φ , Congo), *S. modestus* n. sp. (σ φ , South Africa), *S. pecten* n. sp. (σ φ , Botswana, Zambia), *S. specularis* n. sp. (σ φ , Malawi), *S. sudanicus* n. sp. (φ , Sudan), *S. zambiensis* n. sp. (φ , Zambia, Zimbabwe). *Stenaelurillus cristatus* Wesołowska & Russell-Smith, 2000 mise en synonymie avec *S. hirsutus* Lessert, 1927. *S. giovae* Caporiacco, 1936 est reconnu comme *nomen dubium*. Les espèces *S. albopunctatus* Caporiacco, 1949, *S. hirsutus* et *S. uniguttatus* Lessert, 1925 sont redécrites. De nouvelles données de distributions sont données pour certaines espèces.

MOTS CLÉS

araignées sauteuses, Stenaelurillus, Afrique, synonymes nouveaux, espèces nouvelles.

INTRODUCTION

The Aelurillinae Simon, 1901 is a large subfamily of jumping spiders including ten genera: Aelurillus Simon, 1884, Asianellus Logunov & Heciak, 1996, Langelurillus Próchniewicz, 1994, Langona Simon, 1901, Mashonarus Wesołowska & Cumming, 2002, Microheros Wesołowska & Cumming, 1999, Phlegra Simon, 1876, *Proszynskiana* Logunov, 1996, *Rafalus* Prószyński, 1999 and Stenaelurillus Simon, 1885. This subfamily is represented by numerous species in the Palaearctic and Afrotropical Regions, but only by few species in the Oriental Region and by a single one in the Nearctic Region (Phlegra hentzi (Marx, 1899)). However the majority of aelurillines occur in Africa. To date the genus Stenaelurillus has included 27 valid species (Table 1) (Prószyński 2013; Platnick 2014). The majority of them occur in Africa; only five species are distributed in southern Asia (Wesołowska 2013). Numerous species are poorly known, also data on distribution of Stenaelurillus in Africa are very scanty, many species are known exclusively from the type locality. The paper presents redescriptions of three African Stenaelurillus species and descriptions of eight new species and additionally gives new distributional data for four species.

MATERIAL AND METHODS

Specimens were examined in a dish with 75% ethanol. Descriptions of colours pertain to wet specimens. The drawings were made with the aid of a reticular eyepiece attached to a Nikon SMZ stereomicroscope. The epigynes and the male pedipalps were removed for study. The epigynes were macerated in hot 5 % KOH for a few minutes, and cleared in eugenol. After drawings, the genitalia were placed in micro-vials with ethanol and put into the vials containing the specimens from which they been removed. All measurements are given in millimetres, and were made with a binocular microscope (Nikon and MBS-10) equipped with an ocular micrometer scale. Carapace length was measured from the base of the anterior median eyes (without the lenses) to the posterior margin of the carapace medially, abdomen length from the front

abdominal margin to the end of the anal tubercle (without spinnerets). Terminology is standard for spiders (Dippenaar-Schoeman & Jocqué 1997).

ABBREVIATIONS

Specimens examined it this study are deposited in the following institutions:

CAS California Academy of Sciences, San Fran-

cisco; IZF Istituto di Zoologia dell' Università, Firenze;

MHN Muséum d'Histoire naturelle, Genève;
MNHN Muséum national d'Histoire naturelle, Paris;
MRAC Royal Museum for Central Africa, Tervuren;
MTM Magyar Természettudományi Múzeum, Budapest;

NHM Natural History Museum, London;

NMZ National Museum (Natural History) of

Zimbabwe, Bulawayo;

NR Naturhistoriska Riksmuseet, Stockholm; NY the American Museum of Natural History,

New York;

SMN State Museum of Namibia, Windhoek.

SYSTEMATICS

Genus Stenaelurillus Simon, 1885

Type Species. — *Stenaelurillus nigricaudus* Simon, 1886, subsequent designation by Simon (1903).

DESCRIPTION

The genus includes medium sized spiders, ranging from 4.0 to 7.2 mm in length, with dark coloured and hairy body. Cephalothorax slightly pear-shaped, broadest posteriorly, moderately high, with short eye field occupying about a third of carapace length. Eyes arranged in three rows, posterior row equally wide or slightly wider than anterior row. Ocular area clothed in long dense brown bristles, among them short thick setae, at least in anterior half. Carapace dark brown or black, usually with pair of white stripes starting from posterior lateral eyes (sometimes from anterior lateral eyes) and extending to posterior carapace edge, in majority of species white stripes also along lateral margins of carapace. Some males have very long dense "brushes" of hairs on ocular area and on carapace lateral margins in its anterior part. White streaks composed of light hairs, so in many cases hairs rubbed off. Clypeus

TABLE 1. - Valid names of African Stenaelurillus Simon, 1885.

Species		Distribution
S. albopunctatus Caporiacco, 1949	₫9	Kenya
S. ambiguus Denis, 1966	♂_	Libya
S. darwini Wesołowska & Russell-Smith, 2000	₫₽	Tanzania
S. furcatus n. sp.	₫₽	Namibia
S. fuscatus Wesołowska & Russell-Smith, 2000	o"	Tanzania
S. glaber Wesołowska & Russell-Smith, 2011	♂'	Nigeria
S. guttiger (Simon, 1901)	₫₽	Mozambique, Botswana, Zimbabwe, South Africa
S. hirsutus Lessert, 1927	₫9	Congo, Ghana, Tanzania
S. ignobilis Wesołowska & Cumming, 2011	φ	Zimbabwe
S. iubatus Wesołowska & Russell-Smith, 2011	₫9	Nigeria
S. kavango n. sp.	φ	Namibia
S. kronestedti Próchniewicz & Hęciak, 1994	₫₽	Tanzania
S. latibulbis n. sp.	₫9	Congo
S. leucogrammus Simon, 1902	♂ _	Mozambique, Zimbabwe
S. modestus n. sp.	₫₽	South Africa
S. mirabilis Wesołowska & Russell-Smith, 2000	₫₽	Tanzania
S. natalensis Haddad & Wesołowska, 2006	₫₽	South Africa
S. nigricaudus Simon, 1886	₫₽	Algeria, Gambia, Senegal
S. pecten n. sp.	₫₽	Botswana, Zambia
S. pilosus Wesołowska & Russell-Smith, 2011	₫9	Nigeria
S. specularis n. sp.	♂♀	Malawi
S. strandi Caporiacco, 1939	o"	Ethiopia
S. striolatus Wesołowska & Russell-Smith, 2011	<i>ਹੈ</i>	Nigeria
S. sudanicus n. sp.	Q	Sudan
S. uniguttatus Lessert, 1925	♂_	Tanzania
S. werneri Simon, 1906	₫₽	Uganda
S. zambiensis n. sp.	₫9	Zambia, Zimbabwe

of variable size, low to high, in some species with contrasting pattern. Chelicerae with very small teeth, two on prolateral margin and single on retrolateral. Sternum oval. Abdomen shield-shaped, with anterior edge straight, often in males dorsum covered by scutum two third abdomen length. Coloration of abdomen usually black with lighter pattern, often one or three rounded white spots in posterior part, in some species part of dorsum area lustrous. Anterior edge of carapace always with long dense bristles. Spinnerets thin and long, composed of two or three segments, distal segments black. Legs short, usually dark yellow, tarsi with black claw tuft. Leg formula: III, IV, I, II. Male genital organs resembling that in Aelurillus, bulb oval with long triangular posterior lobe, embolus short, accompanied by one or two tegular apophyses, tibia sometimes dorsally ornamented by black long feather-shaped bristles. Epigyne small, strongly sclerotized, often with single deep pocket, with two – wide apart – copulatory openings. Biology

poorly known, ground living spiders, found in warm dry environments, some species associated with termites.

Stenaelurillus albopunctatus Caporiacco, 1949 (Fig. 1)

Stenaelurillus albopunctatus Caporiacco, 1949: 474, fig. 89a, b.

Type Material. — **Syntypes**. Kenya (without precise locality), 1 σ , 1 \circ (IZF).

MATERIAL EXAMINED. — Kenya, Coast Province, Diani Beach, 19 km S from Mombasa, 4°10'S, 39°40'E, V.1957, leg. N. Krauss, 1 \, \(\text{(NY)} \).

DIAGNOSIS. — The male is similar to *S. leucogrammus* Simon, 1902, and may be distinguished by clearly longer dorsal flat appendix of palpal tibia and shorter posterior lobe of bulb. The female has copulatory openings slightly narrowed, as vertical fissures, with very strongly sclerotized surrounding area.

DISTRIBUTION. — Known only from Kenya.

REDESCRIPTION

Measurements (male/female)

Cephalothorax: length 2.6/2.9, width 1.9/2.0, height 1.0/1.2. Abdomen: length 2.7/2.9, width 1.9/2.3. Eye field: length 1.0/1.0, anterior and posterior width 1.6/1.5.

Male

Carapace oval, slightly broader posteriorly, moderately high, eye field brown, thoracic part lighter. Two pairs of white streaks on carapace, first starting from anterior lateral eyes and extending to posterior carapace edge and second along lateral edges. Dense bristles on eye field. Clypeus low, brownish, clothed in colourless hairs. Chelicerae light brown, unidentate, with small teeth. Labium, endites and sternum orange brownish. Abdomen shield-shaped with straight anterior edge, two third its length covered with brownish scutum, posterior part blackish with three white rounded spots. Long, dense brown bristles on anterior abdominal edge. Spinnerets very long, their tips black. Legs brownish. Palpal organ as in Figure 1A, B, retrolateral apophysis almost vertical, narrow. Palpal tibia dorsally with large flat process, feather-shaped, long black bristles on it (Fig. 1B). Embolus accompanied by large triangular terminal apophysis.

Female

Carapace brown with darker eye field, dense long bristles on eye field, among them thick short setae. Abdomen dark brown with three white small spots posteriorly. Sides marked by dark points, venter greyish yellow. Epigyne small with two large narrow copulatory openings surrounded by strongly sclerotized area (Fig. 1C, D). Seminal ducts very short, fertilization ducts large (Fig. 1E, F).

Stenaelurillus darwini Wesołowska & Russell-Smith, 2000 (Fig. 2)

Stenaelurillus darwini Wesołowska & Russell-Smith, 2000: 98, figs 269-276.

Stenaelurillus sp. 2 – Prószyński 1984: 140.

MATERIAL EXAMINED. — Kenya, Coast Province, Kwale, 30 km S from Mombasa, 4°10'S, 39°40'E, 12.XI.1992, leg. V. Roth, 2 σσ (CAS).

DIAGNOSIS. — The male is easily distinguished from other members of the genus by abdominal pattern with median transverse iridescent zone, except *S. uniguttatus* Lessert, 1925 from Kenya, which has the same coloration. *Stenaelurillus darwini* differs in palp structure, especially by the presence of tuft of long bristles on dorsal apophysis tip, stretching half of cymbium length (hang down, towards base of tibia in *S. uniguttatus*). The female can be distinguished by unique shape of epigyne, with two large semispherical monticules (see fig. 275 in Wesołowska & Russell-Smith 2000). This character is exceptional, all known species have epigyne with depressions.

DISTRIBUTION. — Species known from Tanzania, for the first time recorded in Kenya.

REDESCRIPTION

Measurements

Cephalothorax: length 2.7, width 2.0, height 1.0. Abdomen: length 2.8, width 2.0. Eye field: length 1.0, anterior and posterior width 1.6.

Male

Shape of body typical for the members of the genus. Carapace moderately high, slightly broadened posteriorly, dark brown, with two thin whitish band on thoracic part. Eye field black, with shine, thick rod hairs on anterior part, anterior eyes framed with black scales above and white hairs below. Some white hairs and few long thick dark bristles on clypeus. Chelicerae orange, unidentate, teeth very small. Labium, endites and sternum yellowish. Abdomen coloured as in Fig. 2A; dull black, with strongly lustrous fillet in midway and two tear-shaped white patches. Long dark bristles on anterior edge of abdomen. Venter yellowish, dark spotted. Spinnerets long, greyish beige, posterior with black tips. Legs brown, coxae yellowish, their hairs and spines brown. Pedipalps as in Fig. 2B-E; embolus with accompanying hooked structure and long, thin, pointed, membranous terminal apophysis (Fig. 2B, C). Retrolateral tibial apophysis thin and pointed, tuft of long black bristles on dorsal outgrowth

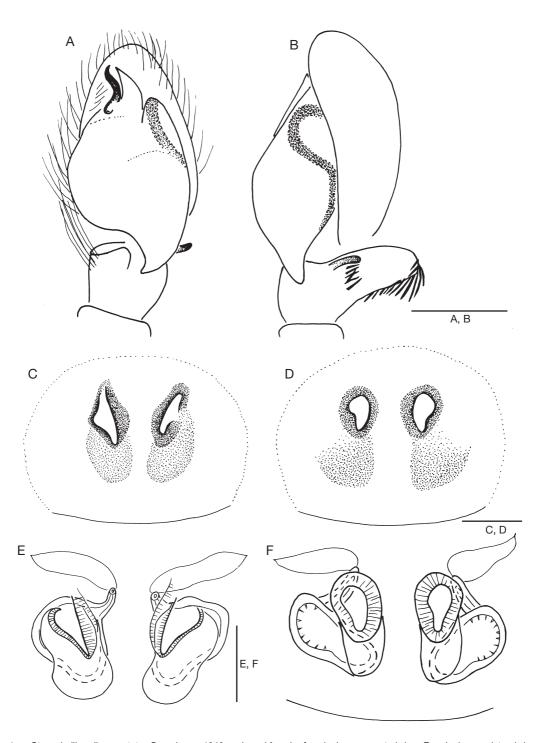


Fig. 1. — Stenaelurillus albopunctatus Caporiacco, 1949, male and female: $\bf A$, palpal organ, ventral view; $\bf B$, palpal organ, lateral view; $\bf C$, $\bf D$, epigyne; $\bf E$, $\bf F$, internal structure of epigyne; $\bf A$ - $\bf C$, $\bf E$, syntypes. Scale bars: A, B, 0.3 mm; C-F, 0.1 mm.

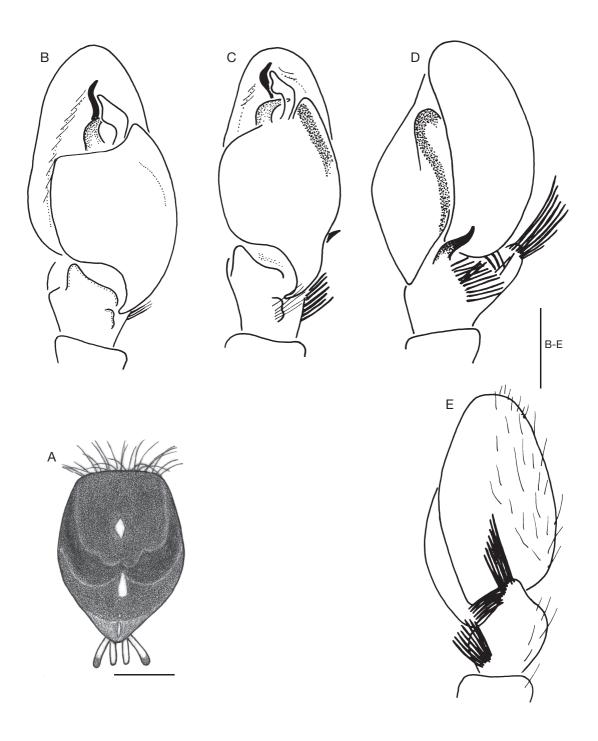


Fig. 2. — Stenaelurillus darwini Wesolowska & Russell-Smith, 2000, male: **A**, abdominal pattern; **B**, palpal organ, ventrolateral view; **C**, palpal organ, ventral view; **D**, palpal organ, lateral view; **E**, palpal organ, dorsal view. Scale bars: A, 1.0 mm; B-E, 0.3 mm.

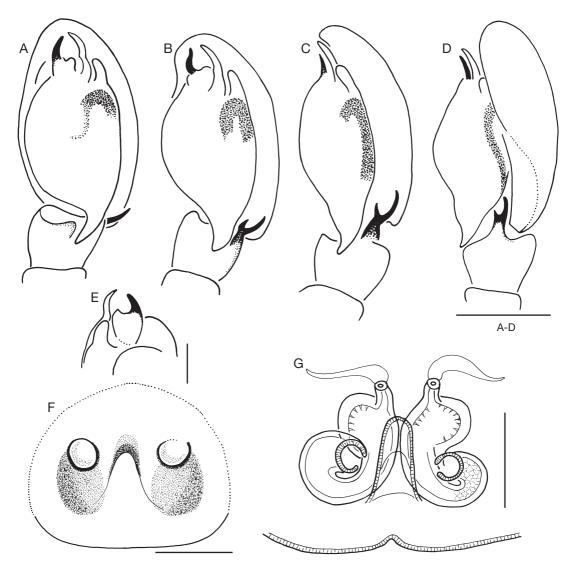


Fig. 3. — Stenaelurillus furcatus n. sp., male and female, paratypes: **A**, palpal organ, ventral view; **B**, **C**, palpal organ, ventrolateral views; **D**, palpal organ, lateral view; **E**, embolic division, dorsal view; **F**, epigyne; **G**, internal structure of epigyne. Scale bars: A-D, 0.3 mm; E-G, 0.1 mm.

of tibia, stretching to half cymbium length, retrolateral side of tibia ornamented with same bristles (Fig. 2D, E). Palpal femur with low wide process ventrally.

Female

Description in Wesołowska & Russell-Smith (2000).

Stenaelurillus furcatus n. sp. (Fig. 3)

TYPE MATERIAL. — **Holotype**. Namibia, Ethosha National Park, *Tereminalial Spirostachys* forest, III.1998, leg. A. Russell-Smith, 1 σ (NHM).

Paratypes. Together with holotype, $3 \sigma \sigma$, $2 9 \circ (NHM)$; same data, $1 \sigma (MRAC)$; same data, $1 \sigma (MNHN)$; Namibia, Ovamboland, Mahanene Agric. Res., $17^{\circ}26'S$,

14°47'E, pitfall trap, 6.IX-5.X.1993, leg. B. Wohlleber, 11 $\sigma\sigma$, 10 ς 9, 3 imm. (SMN 43356); same locality, 5.X-5.XI.1993, 20 $\sigma\sigma$, 8 ς 9 (SMN 43278); same locality, 5.XI-5.XII.1993, 2 σ , 1 imm. (SMN 43385); Ovamboland, 10 km SE of Etunda, 17°26'S, 14°33'E, pitfall trap, 20.VII-9.VIII.1989, leg. E. Marais, 1 σ (SMN 41410).

DIAGNOSIS. — The male is distinguished from congeners by the shape of tibial apophysis with forked tip. The female is difficult to recognize: epigyne has a deep central pocket, widely separated copulatory openings, epigynal depression absent.

ETYMOLOGY. — The specific name is Latin, meaning "forked" and refers to the shape of the tibial apophysis of the male palp.

DISTRIBUTION. — Known only from northern Namibia.

DESCRIPTION

Measurements (male/female)

Cephalothorax: length 2.2-2.3/2.7-2.8, width 1.5-1.6/2.0-2.1, height 0.7-0.8/1.0-1.1. Abdomen: length 2.0-2.3/3.2-3.6, width 1.6-1.7/2.6-2.7. Eye field: length 0.8-1.0/0.9-1.0, anterior and posterior width 1.2-1.3/1.3-1.4.

Male

Carapace medium high, pear-shaped, broadest posteriorly, brown with pair of wide whitish streaks on dorsum and second pair along lateral margins. Eye field short, slightly darker than thoracic part, clothed in dense brown hairs and short thick rod bristles, anterior eyes fringed with white hairs. Clypeus with mat of white hairs. Chelicerae yellow to light brown, with single retrolateral tooth, all teeth very small. Labium, endites and sternum yellow. Abdomen oval with almost straight anterior edge, black with thin median white band, in some specimens pair of small white spots adjacent to the band posteriorly. Dorsum of abdomen clothed in shining hairs clinging to surface, dense long more upright setae on anterior edge. Sometimes abdomen without setae (bald), then covered by delicate scutum spreading to mid abdomen length. Sides and venter light. Anterior spinnerets light, posteriors very long, composed of three segments, black (or at least their tips black). Legs yellow with black spots on coxae and bases of femora ventrally, first pair

with black metatarsi and tarsi and blackish streak on ventral surfaces of patellae and tibiae. Leg hairs brown, spines numerous. Pedipalps yellow, cymbium flattened dorsally. Structure of palp as in Fig. 3A-D; embolus short with thin long accompanying tegular apophysis; tibial apophysis forked (Fig. 3E).

Female

Slightly larger than male, abdomen slightly swollen. Coloration similar, all legs yellowish. Epigyne very small and weakly sclerotized, with central pocket (Fig. 3F). Internal structure simple (Fig. 3G); copulatory openings framed by delicate flanges, walls of spermathecae thick.

Stenaelurillus glaber Wesołowska & Russell-Smith, 2011

Stenaelurillus glaber Wesołowska & Russell-Smith, 2011: 593, figs 151, 152, 238-240.

MATERIAL EXAMINED. — Ghana, Aburi, 5°51'N, 0°11'W, 26.I.1991, leg. W. Puławski, 1 σ (CAS); Uganda, [without precise locality], VIII-IX.1913, leg. K. Kittenberger, 1 σ (MTM); Pakwach, 2°28'N, 31°30'E, sweep net, 7.IV.1995, leg. D. Penney, 1 σ (MNH).

DISTRIBUTION. — Hitherto known from Nigeria, recorded for the first time in Ghana and Uganda here.

REMARKS. — Species very similar to *S. hirsutus* Lessert, 1927, but differs in having low, light clypeus (high, black with light vertical stripes in *S. hirsutus*) and light coloration of palp.

Stenaelurillus hirsutus Lessert, 1927 (Figs 4; 15)

Stenaelurillus hirsutus Lessert, 1927: 434, fig. 18a, b.

Stenaelurillus cristatus Wesołowska & Russell-Smith, 2000: 98, figs 261-268. — Szűts & Scharff 2005: 375, figs 7d, e, 9a-d, n. syn.

MATERIAL EXAMINED. — Holotype of *S. cristatus*. Congo (Zaire), Faradje, 3°43'N, 29°43'E, coll. R. Lessert, 1 σ (MHN): Central Africa, Bambari, 5°46'N, 20°41'E, II.1969, leg. G. Pierrard, 1 ♀ (MRAC 136633); Ghana, Banda Nkwanta, 8°21'N, 2°08'W, pitfall trap, 1-14.VII.1965, leg. T. Endrödy-Younga, 6 σσ,

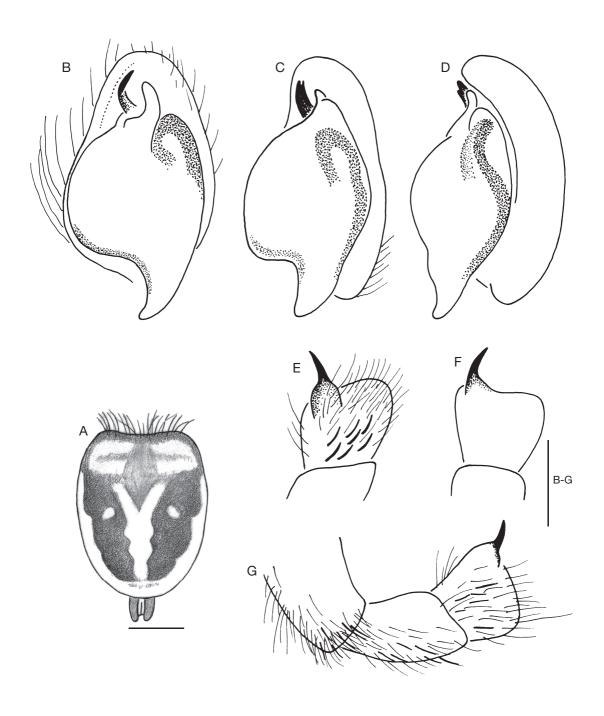


Fig. 4. — Stenaelurillus hirsutus Lessert, 1927, male, holotype: **A**, abdominal pattern; **B**, palpal organ, ventral view; **C**, palpal organ, ventrolateral view; **D**, palpal organ, lateral view; **E**, palpal tibia, lateral view; **F**, palpal tibia, dorsal view; **G**, basal segments of palp. Scale bars: A, 1.0 mm; B-G, 0.3 mm.

2 ♀♀, 3 imm. (MTM); Ivory Coast, Kossou, 7°06'N, 5°30'W, savanna, 10.X-8.XI.1974, leg. R. Jocqué, 2 ♂♂ (MRAC 152635); same locality, 1-15.XII.1974, 4 ♂♂ (MRAC 152630); same locality, 18.II-2.III.1975, 1 ♂ (MRAC 152461); same locality, 15.III-2.IV.1975, 2 ♀♀ (MRAC 152463); same locality, 15-28.IV.1975, 12 ♂♂ (MRAC 152386); same locality, 13-23.V.1975, 9 ♂♂, 1 ♀ (MRAC 152414); same locality, 23.V-10.VI.1975, 13 ♂♂ (MRAC 152392); same locality, 10.VI.1975, 1 ♂, 3 ♀♀ (MRAC 152926); Senegal, 10 km S from Bignona, 12°49'N, 16°14'W, 12.VII.1991, leg. W. Puławski, 1 ♂ (CAS); Dakar [Cape Verde] Peninsula, 14°45'N, 17°20'W, IV.1945, leg. E. Newbomb, 1 ♂ (NY); same locality, V.1945, 2 ♂♂, 1 ♀ (NY).

DIAGNOSIS. — The male is easily distinguished by characteristic striped pattern of clypeus (white with two vertical black stripes) and presence of protrudent "mane" on eye field. The female has epigyne with fissured horizontal copulatory openings (see fig. 267 in Wesołowska & Russell-Smith 2000).

DISTRIBUTION. — Species hitherto known from Ghana, Congo and Tanzania, for the first time recorded in Central Africa, Ivory Coast and Senegal.

COMMENTS. — The type of *S. hirsutus* is slightly bleached, its carapace bald, the majority of hairs rubbed of, only thick rod hairs on anterior half of eye field preserved. Also clypeus is devoid of hairs, uniformly light. Still in original description author reports the presence of two vertical black stripes on cylpeus and long bristles on eye field (Lessert 1927: fig. 18b). During my studies on *Stenaelurillus*, I met many times specimens which lost part/majority of their ornamental hairs. Analysis of coloration, palpal structure and distribution of *S. cristatus* and *S. hirsutus* justified synonymization of their names, so I propose *S. cristatus* as a junior synonym of *S. hirsutus*.

REDESCRIPTION

Measurements

Cephalothorax: length 2.3-2.7, width 1.5-1.9, height 1.0-1.1. Abdomen: length 2.4-2.5, width 1.8-2.3. Eye field: length 0.9-1.1, anterior and posterior width 1.5-1.7.

Male

General appearance as in Figure 15A, B. Carapace oval, slightly broader posteriorly, moderately high, with short eye field. Colouration of carapace brown, white hairs form two parallel stripes on thoracic part, lateral edges of carapace also lighter. Eye field black, very long and dense fawn hairs form punk-like tuft

(Fig. 15B), in the majority of studied specimens these hairs partially or fully rubbed off and then visible short thick setae usually hidden among them. Long fawn hairs form "brushes" on sides of carapace anteriorly, at femora I and II, sometimes lost. Clypeus relatively high, white with two black vertical streaks, so "face" of spider with contrasting pattern (Fig. 15C). Chelicerae light brown, unidentate, teeth small. Abdomen blackish, anteriorly with two light lines, area among them shining, three rounded whitish patches posteriorly (Fig. 4A), sides and venter light. Spinnerets long, composed of two segments, blackish tips. Legs yellowish, with brown patches formed by brown hairs. Spines long, brown, numerous. Pedipalps light, clothed in dense blackish hairs on prolateral side and white on retrolateral (Fig. 15C), black scales on cymbium base. Palpal tibia with thin single short pointed apophysis (Fig. 4E-G). Embolic division as in Fig. 4B.

Female

General appearance as in Figure 15D. Description in Wesołowska & Russell-Smith (2000).

Stenaelurillus kavango n. sp. (Fig. 5)

Type Material. — **Holotype.** Namibia, Kavango area, 5 km W from Samsu, Koudam Omuranba, 18°30'S, 19°30'E, pitfall trap, 20-22.VI.1984, leg. E. Griffin, 1 \(\text{(SNM 41667)}. \)

DIAGNOSIS. — This species can be recognized by structure of epigyne, especially by the presence of accessory glands falling into seminal ducts.

ETYMOLOGY. — The specific names is a noun in apposition, referring to the *terra typica* (Kavango).

DISTRIBUTION. — Known only from the type locality.

DESCRIPTION

Measurements

Cephalothorax: length 2.8, width 2.5, height 1.4. Abdomen: length 3.1, width 2.4. Eye field: length 0.9, anterior width 1.6, posterior width 1.7.

Male

Unknown.

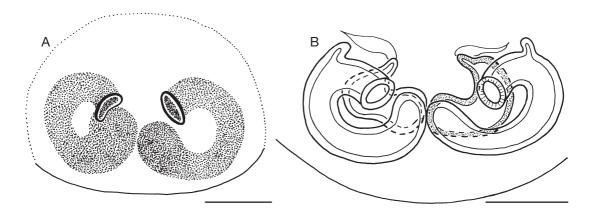


Fig. 5. - Stenaelurillus kavango n. sp., female, holotype: A, epigyne; B, internal structure of epigyne. Scale bars: 0.1 mm.

Female

Shape of body typical for the genus, carapace broadened posteriorly, dark brown with pair of whitish streaks along lateral margins and second pairs on thoracic part, whole carapace covered by dense hairs, brownish black on dark background and whitish on light areas. Eye field very short, black, clothed in dense brown bristles and thick short setae, anterior median eyes encircled by short white hairs. Clypeus low, dark. Chelicerae light brownish. Abdomen brownish black with light median band, sides and venter yellowish. Spinnerets dark. Legs light brown with darker patches composed of hairs, distal segments darker than basal. Pedipalps light yellow. Epigyne oval, strongly sclerotized, with copulatory openings placed centrally (Fig. 5A). Internal structures as in Fig. 5B; seminal ducts run towards sides and next to epigastric fold, short accessory glands fall into seminal ducts in their initial course.

Stenaelurillus latibulbis n. sp. (Fig. 6)

TYPE MATERIAL. — Holotype. Congo (Zaire), Katanga Province, Luiswishi, 28 km NE Lubumbashi, 11°31'S, 28°11'E, 1200 m asl., savanna, 1974, leg. F. Malaisse, 1 & (MRAC 145506).

Paratypes. Together with holotype, 5 ♂♂; same data, 2 ♂♂ (MNHN); same data, 1 ♀ (MRAC 145501); Elizabethville [Lubumbashi] 11°40'S, 27°28'E, IV.1911, leg. L. Stappers, 1 ♀ (MRAC 11985).

DIAGNOSIS. — The male has very wide and relatively short bulb and embolus enveloped by tegular apophysis, only its tip is visible. Epigyne slightly similar to that in *S. kavango* n. sp., but accessory glands absent and copulatory openings are larger, surrounded by strongly sclerotized areas.

ETYMOLOGY. — The specific name refers to the shape of the palpal bulb.

DISTRIBUTION. — Known only from the type locality and its environs.

DESCRIPTION

Measurements (male/female)

Cephalothorax: length 2.7-3.0/2.6-2.7, width 2.2-2.3/1.8-1.9, height 0.9-1.1/1.0-1.1. Abdomen: length 1.9-2.3/2.6-3.4, width 1.8-1.9/2.2-2.8. Eye field: length 0.9-1.0/0.9-1.0, anterior and posterior width 1.6-1.7/1.4-1.5.

Male

Carapace slightly pear shaped, dark brown with black eye field. White hairs form two thin lines on thoracic part, some white hairs on slopes, eye field clothed in long brown bristles, thick rod hairs on anterior part of eye field. Anterior eyes surrounded by small white scales. Clypeus low, dark. Mouth parts and sternum light brown. Abdomen black, three quarters of its length covered with scutum. Tufts of short white hairs form very small patches on dorsum, denser at anterior edge of abdomen, sometimes one of them larger (placed posteriorly,

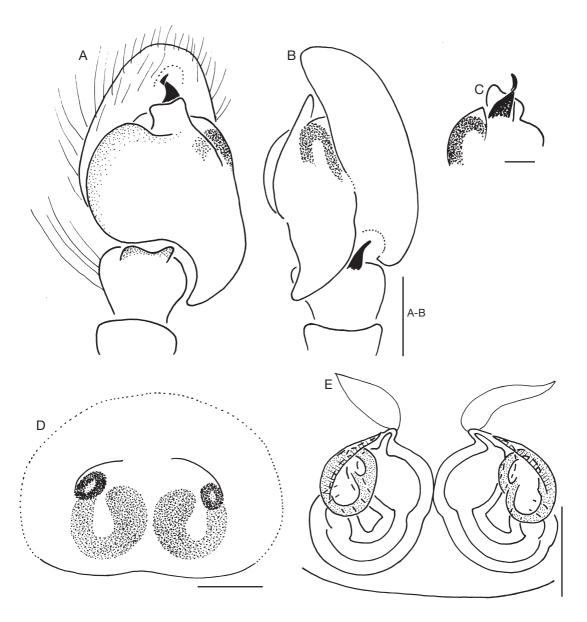


Fig. 6. — Stenaelurillus latibulbis n. sp., male and female, paratypes: **A**, palpal organ, ventral view; **B**, palpal organ, lateral view; **C**, embolic division, dorsal view; **D**, epigyne; **E**, internal structure of epigyne. Scale bars: A, B, 0.3 mm; C-E, 0.1 mm.

behind scutum). In some specimens these white dots absent, only dark scutum present. Long dark bristles on abdomen anteriorly. Venter yellowish grey. Spinnerets long, dark. Legs brown, bearing dark hairs, spines numerous, especially on distal pairs of legs. Pedipalps brown, clothed in dense

hairs, brown with admixture of light ones. Tibial apophysis short, hidden in corresponding shallow cymbial cavity (Fig. 6B). Bulb short and broad (Fig. 6A), embolus small, poorly visible (partially enveloped by large membranous apophysis (Fig. 6C).

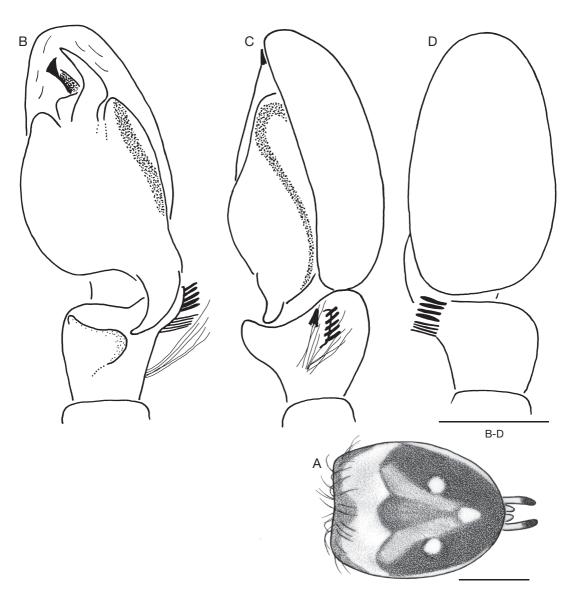


Fig. 7. — Stenaelurillus leucogrammus Simon, 1902, male (specimen from Mozambique): **A**, abdominal pattern; **B**, palpal organ, ventral view; **C**, palpal organ, lateral view; **D**, palpal organ, dorsal view. Scale bars: A, 1.0 mm; B-D, 0.3 mm.

Female

Carapace pear shaped, widest at coxae III, coloured dark brown, clothed in dense brown hairs, some whitish hairs on slopes. Eye field slightly darker than thoracic area, with thick short setae and long brown bristles. Pair of white streaks starting from anterior lateral eyes and extending to end of carapace.

Short white hairs frame anterior eyes and form small patches below lateral ones. Mouth parts light brown, only tips of endites whitish, sternum yellowish orange. Abdomen swollen, dark brown with slightly lighter pattern composed of large triangular median belt narrowing posteriorly and pair of small round patches placed laterally about

half of abdominal length. Sides greyish brown, marked by darker dots. Venter light. Legs brown with darker patches. Epigyne small, as in Fig. 6D. Copulatory openings large, their edges strongly sclerotized, with additional narrow sclerotized flanges, seminal ducts and receptacles thick walled (Fig. 6E).

Stenaelurillus leucogrammus Simon, 1902 (Fig. 7)

Stenaelurillus leucogrammus Simon, 1902: 37. — Wesołowska & Cumming 2011: 98, figs 81-84.

MATERIAL EXAMINED. — Mozambique [without precise locality], leg. P. Lesne, det. R. Lessert, 1 σ (MHN); Zimbabwe, Mana Pools National Park, 15°45'S, 29°20'E, 9.V.1984, 1 σ (MRAC).

DIAGNOSIS. — The male palp of this species is similar to that in *S. albopunctatus*, but differs in the shape of retrolateral flat outgrowth of the tibia, which is clearly shorter.

DISTRIBUTION. — Known from Mozambique and Zimbabwe.

REDESCRIPTION

Measurements

Cephalothorax: length 2.4, width 1.8, height 0.8. Abdomen: length 2.2, width 1.7. Eye field: length 0.9, anterior and posterior width 1.4.

Male

Carapace brown with darker ocular area, clothed in dense blackish hairs, among them thick shorter bristles on anterior part of eye field. White hairs form pair of streaks on carapace, starting from anterior lateral eyes and extending to posterior edge of carapace, sides also with light streaks, black lines along lateral margins. Clypeus low, brown, mouth parts and sternum yellowish. Abdomen dark brown, third anterior part clearly lighter, three round patches posteriorly (Fig. 7A), venter light yellowish. Long dense bristles on anterior edge. Spinnerets light, long, distal segment of posterior ones black. Legs brown, pairs III and IV with long metatarsi and tarsi. Pedipalps light brown, its structure as in Fig. 7C, D.

Embolus with bent tip, long tegular apophysis (Fig. 7B), row of dense black scale-like bristles on retrolateral side of tibia anteriorly, very small spike retrolateraly, hidden in dense long bristles (Fig. 7C).

Stenaelurillus mirabilis Wesołowska & Russell-Smith, 2000

Stenaelurillus mirabilis Wesołowska & Russell-Smith, 2000: 102, figs 281-289.

MATERIAL EXAMINED. — Kenya, Tsavo National Park East, Aruba Lodge, 3°21'S, 38°49'E in litter, 15.VIII.1965, leg. V. Mahnert, 1 & (MHN).

DISTRIBUTION. — Hitherto known only from Mkomazi Game Reserve in NE Tanzania. For the first time recorded in the neighbouring Tsavo N.P. in Kenya.

Stenaelurillus modestus n. sp. (Fig. 8)

Type Material. — **Holotype**. South Africa, KwaZulu-Natal, Ndumo Game Reserve, 26°55'S, 32°16'E, leaf litter, broadleaf woodland, 30.VI.2009, leg. C. Haddad, R. Lyle & V. Butler, 1 σ (NCA 2012/925). **Paratypes**. Together with holotype, 3 $\sigma \sigma$, 2 $\varsigma \varsigma$ (NCA 2009/3661); same data, 1 σ , 1 ς (MRAC); same locality, 26°53'S, 32°11'E, grass litter in *Acacia* savanna,

DIAGNOSIS. — The male is characterized by the palpal organ structure, its bulb is elongated with large triangular tegular apophysis and thin straight embolus. The female has epigyne with horseshoe-shaped depression, seminal ducts are longer than in congeners, their course characteristic (Fig. 7E).

4.VII.2009, leg. C. Haddad, 1 & (NCA 2009/3662).

ETYMOLOGY. — The specific name is Latin, meaning "modest", arbitrary name.

DISTRIBUTION. — Known only from the type locality.

DESCRIPTION

Measurements (male/female)

Cephalothorax: length 2.0-2.4/2.6-2.7, width 1.5-1.9/1.8-1.9, height 0.8-1.0/1.0-1.1. Abdomen: length 1.9-2.3/2.6-3.4, width 1.8-1.9/2.2-2.8. Eye field: length 0.9-1.0/0.9-1.0, anterior width 1.2-1.4/1.4-1.5 posterior width 1.3-1.7/1.5-1.6.

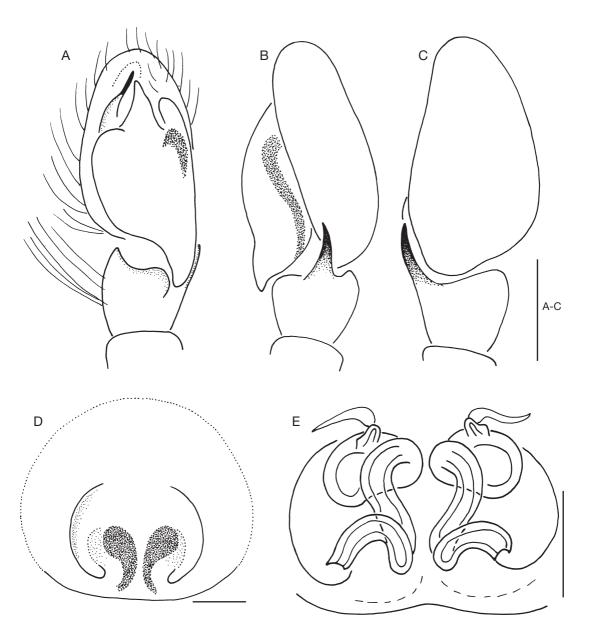


Fig. 8. — Stenaelurillus modestus n. sp., male and female, paratypes: **A**, palpal organ, ventral view; **B**, palpal organ, lateral view; **C**, organ, dorsal view; **D**, epigyne; **E**, internal structure of epigyne. Scale bars: A-C, 0.3 mm; D, E, 0.1 mm.

Male

Medium sized spider, carapace black, clothed in dense dark hairs, with pair white streaks starting from anterior eyes and extending almost to the posterior carapace edge, white hairs also on lateral sides. Long dense brown bristles on eye field, among them short thick setae on anterior section. Anterior eyes surrounded by short white hairs, some such hairs on clypeus. Mouth parts and sternum light brown. Abdomen shield-shaped, short and broad

with anterior edge almost straight, black with delicate traces of lighter median band, two large light areas anteriorly and pair of small whitish round patches posteriorly, aligned to median band. Abdominal dorsum clothed in hairs correspond to background colour cover, clinging to surface. Long bristles on anterior margin of abdomen. Venter light brown with broad dark triangular patch. Spinnerets long, blackish. Legs brown, their spines and hairs dark. Pedipalps brown. Tibial apophysis pointed (Fig. 8B, C), embolus straight (Fig. 8A).

Female

Slightly larger than male, colouration similar, median band on abdomen broader, posterior patches absent, sides and venter mottled with dark dots. Legs brown with blackish rings formed by dark hairs. Epigyne with shallow central depression (Fig. 8D), ventral structure as in Fig. 8E, copulatory openings placed laterally, seminal ducts run to mid of epigynal posterior edge, form small lop and next toward on front.

Stenaelurillus nigricaudus Simon, 1886 (Fig. 9)

Stenaelurillus nigricauda Simon, 1886: 351. — Berland & Millot 1941: 313, fig. 14.

Stenaelurillus nigritarsis Simon, 1886: 351. — Caporiacco 1936: 79 (synonymized in Szűts & Scharff 2005).

Stenaelurillus nigricaudus – Szűts & Scharff 2005: 372, figs 7a-c, 8a-d.

MATERIAL EXAMINED. — Mali, Ségou Region, Kassarola, 13°18'N, 4°54'W, IX.1969, leg. G. Pierrard, 1 σ (MRAC 136820); Niger, Niamey, 13°31'N, 2°07'E, Millet Field, leg. J.M. Ritchie, 1 σ, 2 ♀♀ (NHM); Senegal, Dakar, 14°40'N, 17°26'W, VIII.1980, leg W. Settle, 2 σσ (CAS); Linguère, 15°24'N, 15°07'W, 22.VII.1991, leg. W. Puławski, 1 σ (CAS); Ndangange, 45 km SE from Mbour, 14°24' N, 16°58'W, 26.VI.1991, leg. W. Puławski, 1 ♀ (CAS).

Holotypes of *S. nigricaudus* and *S. nigritarsis* kept in MNHN in Paris were lately redescribed and illustrated by Szűts & Scharff (2005).

DIAGNOSIS. — The palpal organ is distinguishable; the base of the embolus is placed in bulb's recess, and the tip

of bulb reaches to the end of embolus from prolateral side. The female is difficult to recognize from some other species, but flanges at copulatory openings are diagnostic.

DISTRIBUTION. — Known from Algeria, Gambia and Senegal; in Niger and Mali recorded for the first time.

REMARKS. — Although female of the species was mentioned by Caporiacco (1936) and Berland & Millot (1941), it has not been formally described. Szűts & Scharff (2005) found females in vials containing holotypes of *S. nigricaudus* and *S. nigritarsis* (not mentioned in the original descriptions), but in their opinion these females could be wrongly associated with the males.

REDESCRIPTION

Measurements (male/female)

Cephalothorax: length 1.9-2.1/2.4-2.7, width 1.5-1.6/1.8-2.0, height 0.7-0.8/1.0-1.2. Abdomen: length 2.1-2.2/2.3-3.7, width 1.4-1.5/2.0-2.7. Eye field: length 0.7-0.9/0.8-0.9, anterior width 1.1/1.1-1.3, posterior width 1.2/1.2-1.4.

Male

General appearance as in Fig. 9A. Carapace pearshaped, with short eye field, moderately high. Eye field black, thoracic part reddish brown, with pair of light stripes composed of white hairs on dorsum, second pair along lateral edges of carapace. Dense grey hairs on eye field, scarce brown bristles among them and on thoracic part, thick rod bristles on eye field anteriorly. Anterior eyes surrounded with small whitish scales. Clypeus low, light brown. Chelicerae with two very small teeth on promargin and single tooth on retromargin. Mouth parts and sternum dark yellow. Abdomen ovoid with straight anterior edge, reddish brown with wide median darker streak. Dorsum of abdomen clothed in clinging to surface hairs correspond to background colour, dense long bristles on anterior abdomen edge, in one specimen abdomen "bald" covered by large scutum, which occupies two thirds of its length. Sides and venter light. Spinnerets long, yellowish, posteriors with black tips. Legs dark yellow to light brown. First pair with blackish stripes along lateral surfaces of tibiae and metatarsi, tarsi black with black scopula. Leg hairs brown, spines long, numerous. Pedipalps dark brown or black, only cymbium light, femur and patella clothed in dense long light hairs (especially

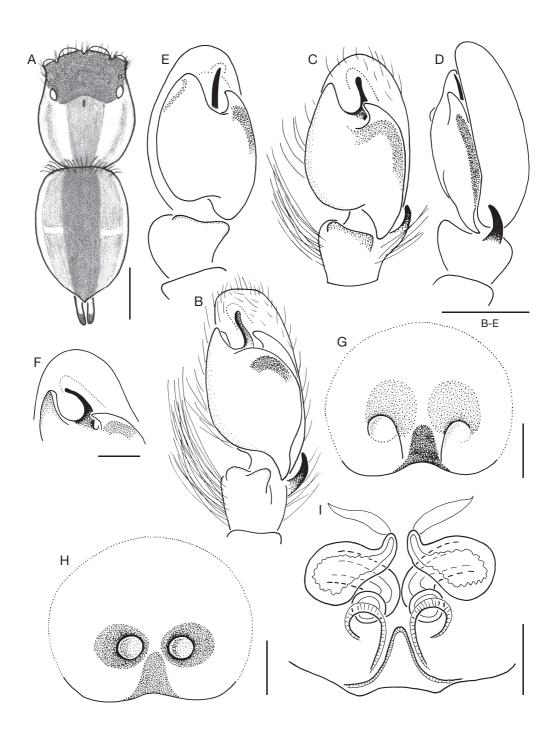


Fig. 9. — Stenaelurillus nigricaudus Simon, 1886, male and female: **A**, general appearance of male; **B**, **C**, palpal organ, ventral view; **D**, palpal organ, lateral view; **E**, palpal organ, ventrolateral view; **F**, embolic division; **G**, **H**, epigyne; **I**, internal structure of epigyne. **A**, **C-F**, **H**, **I**, specimens from Niger; **B**, **G**, specimens from Senegal. Scale bars: A, 1.0 mm; B-E, 0.3 mm; F, 0.1 mm; G-I, 0.1 mm.

dense on prolateral side). Structure of palpal organ as in Fig. 9B-E, embolus with blunt tip (Fig. 9F).

Female

Slightly darker than male and lighter coloured. Carapace light brown, traces of white streaks on thoracic part, eye field blackish, covered with short grey hairs, among them numerous long brown bristles. Anterior eyes with rings composed of small whitish scales. Mouth parts as in male. Abdomen swollen, yellowish, with traces of two longitudinal darker streaks. Venter light. Legs dark yellow, with darker rings form by brown hairs. Epigyne with deep pocket at epigastric furrow and two round copulatory openings (Fig. 9G, H). Copulatory openings encircled by delicate sclerotized flanges, seminal ducts short (Fig. 9I).

Stenaelurillus pecten n. sp. (Figs 10, 16A-C)

Type Material. — **Holotype**. Zambia, Lusaka, 15°25'S, 28°17'E, 14.IV.1979, leg. R. Stjernstedt, 1 o' (MRAC 151983).

Paratypes. Zambia, 6 km SW from Mumbwa, 15°02'S, 27°00'E, 31.III.1995, leg. W. Puławski, 1 ♂ (CAS); Botswana, Okavango Delta, Smiti Moremi Game Reserve, 19°10'S, 23°10'E, mopane woodland, pitfallp, 26.IX.1975, leg. A. Russell-Smith, 7 ♂♂, 1 ♀ (MNH); same data, 2 ♂♂, 1 ♀ (MNHN); same locality, 21.IV.1976, 2 ♀♀ (MNH).

DIAGNOSIS. — The male has an easily recognisable double tibial apophysis of palp; its ventral branch is thin and pointed, dorsal is comb-shaped with several teeth. The female is difficult to recognize, but position of copulatory openings is characteristic; they are aligned whereas separated in other species.

ETYMOLOGY. — The specific name is Latin, meaning "comb" and refers to the shape of the tibial apophysis of the male palp.

DISTRIBUTION. — Known from Botswana and Zambia.

DESCRIPTION

Measurements (male/female)

Cephalothorax: length 2.3-2.8/2.5-3.1, width 1.6-2.2/1.9-2.3, height 1.0-1.4/1.0-1.2. Abdomen: length 2.2-2.8/3.1-3.6, width 1.7-2.0/2.3-2.7. Eye

field: length 0.9-1.1/0.9-1.0, anterior width 1.2-1.6/1.4-1.6 posterior width 1.3-1.7/1.5-1.7.

Male

General appearance as in Fig. 16A, B. Carapace widest at femora III, thoracic part dark brown, in some specimens foveal area slightly lighter, eye field black. Dense brown hairs cover carapace, longer on eye field, some rod bristles at anterior eyes. White hairs form thin bands along lateral margins and extend on clypeus, in some specimens these hairs form "brushes" on lateral carapace edges, pair of light streaks on thoracic part dorsally. Chelicerae brownish, labium and endites yellow, sternum yellow or brown clothed in light hairs. Abdomen oval, brilliant black, sometimes with median lighter area, single round small patch posteriorly (in some specimens three patches), long dark bristles on anterior edge, sides and venter of abdomen yellowish. If abdomen bald, dorsum covered with large delicate brown scutum. Spinnerets long, brown. Legs yellow to brownish, femora I and II black, their prolateral surfaces shining, in some specimens dorsum of first femora with long white hairs. Pedipalps yellow, only base of femur slightly darker, dark line at tip of patella, cymbium clothed in dense light hairs. Structure of pedipalps as in Fig. 10A-D; embolus thin and delicate; two very strongly sclerotized tibial apophyses, ventral one thin with pointed tip, dorsal comb-shaped with several teeth (Fig. 10E).

Female

General appearance as in Fig. 16C. Similar to male, colouration slightly lighter; on abdomen wide median band in posterior half and two round spots laterally from the band. Epigyne with closely aligned round copulatory openings (Fig. 10F), plugged with waxy secretion. Semi-rounded seminal ducts fall into large chamber, spermathecae as in Fig. 10G, in some specimens larger than illustrated.

Stenaelurillus specularis n. sp. (Fig. 11)

Type Material. — **Holotype**. Malawi, Vipya Mts, Chikangawa, 11°50'S, 33°48'E, old *pine* plantation, VI.1978, leg. R. Jocqué, 1 \(\sigma \) (MRAC 153784).

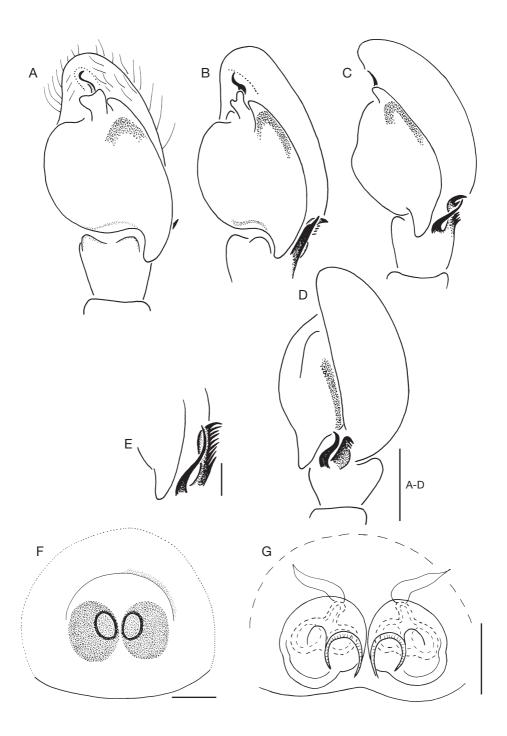


Fig. 10. — Stenaelurillus pecten n. sp., male and female, paratypes: $\bf A$, palpal organ, ventral view; $\bf B$, $\bf C$, palpal organ, ventrolateral view; $\bf D$, palpal organ, lateral view; $\bf E$, tibial apophyses; $\bf F$, epigyne; $\bf G$, internal structure of epigyne. Scale bars: A-D, 0.3 mm; E-G, 0.1 mm.

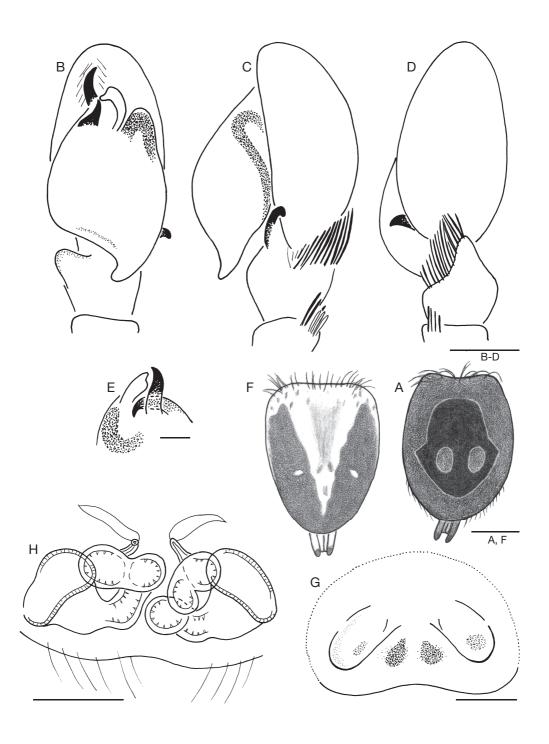


Fig. 11. — Stenaelurillus specularis n. sp., male and female, paratypes: **A**, abdominal pattern of male; **B**, palpal organ, ventral view; **C**, palpal organ, lateral view; **D**, palpal organ, dorsal view; **E**, embolic division, dorsal view; **F**, abdominal pattern of female; **G**, epigyne; **H**, internal structure of epigyne. Scale bars: A, F, 1.0 mm; B-D, 0.3 mm; E, 0.1 mm; G, H, 0.2 mm.

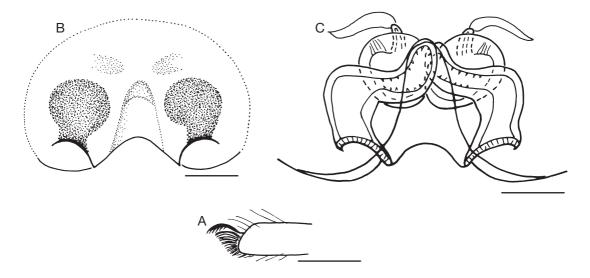


Fig. 12. — Stenaelurillus sudanicus n. sp., female, holotype: **A**, tarsus of first leg; **B**, epigyne; **C**, internal structure of epigyne. Scale bars: A, 0.2 mm; B, C, 0.1 mm.

Paratypes. Together with holotype, 1 σ ; same locality, young pine plantation, X.1977-IV.1978, 2 \circ 9 (MRAC 153043).

DIAGNOSIS. — The male is easily distinguished from other members of the genus by abdominal pattern with large, metallic shining, shield-shaped patch. Pedipalp structure similar to that of *S. darwini* Wesołowska & Russell-Smith, 2000, it differs by the clearly wider retrolateral tibial apophysis and shorter posterior lobe of the bulb. The female is distinctive by the shape of the epigyne, which is relatively short and wide, with very large oval copulatory openings.

ETYMOLOGY. — The specific name is Latin for "brilliant" and refers to the presence of shining area on male's abdomen.

DISTRIBUTION. — Known only from the type locality.

DESCRIPTION

Measurements

Cephalothorax: length 2.4-2.8/2.3, width 1.9-2.0/2.1, height 1.0-1.2/1.2. Abdomen: length 2.6-3.2/3.0, width 1.9-2.0/2.2. Eye field: length 0.9-1.0/1.0, anterior and posterior width 1.5/1.5.

Male

Carapace slightly pear-shaped, wider posteriorly, brownish with two light streaks on thoracic part

and wide white bands along lateral margins of carapace, whole carapace clothed in hairs correspond to background colour cover. Eye field short, black, covered with long brown bristles, thick short setae on anterior part of ocular area, among them scarce white hairs. Clypeus short, yellowish. Mouth parts, chelicerae and sternum yellow. Abdomen oval, dense black hairs cover dorsum, central area occupies shiny large spot ornamented with two oval "windows" (Fig. 11A). Venter yellow. Spinnerets black. Legs yellowish orange, leg hairs brown. First leg with blackish ventral surfaces of tibia, metatarsus and tarsus. Pedipalps light, clothed in brown and colourless hairs. Embolus with accompanying membranous "conductor" (Fig. 11B) and terminal apophysis twined around its base (Fig. 11E). Retrolateral tibial apophysis with bended tip (Fig. 11C), dorsal apophysis with very long dense black stretching bristles, similar feathery bristles on tip of palpal tibia dorsally, part of hairs white (Fig. 11D).

Female

Coloration of carapace as in male, numerous thick short setae on eye field. Abdomen coloured typically for the majority of *Stenaelurillus* sp. of females; brown with large light, triangular area narrowing

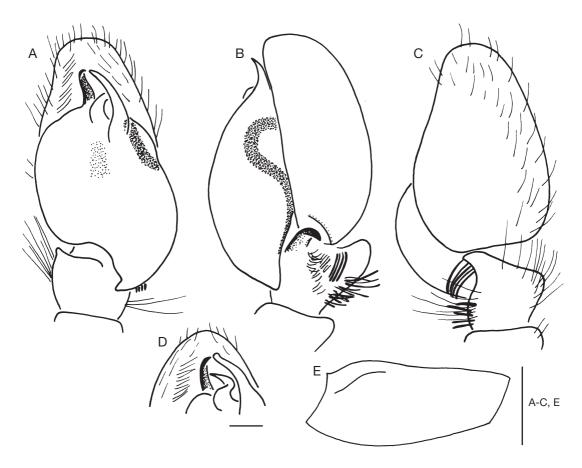


Fig. 13. — Stenaelurillus uniguttatus n. sp., male, holotype: **A**, palpal organ, ventral view; **B**, palpal organ, lateral view; **C**, palpal organ, dorsal view; **D**, embolic division; **E**, palpal femur. Scale bars: A-C, E, 0.3 mm; D, 0.1 mm.

posteriorly; pair of small round white spots half way of abdomen length (Fig. 11F); venter light. Spinnerets light. Legs yellowish orange, bearing brown hairs. Femora III and IV dark. Epigyne with two large oval copulatory openings (Fig. 11G), seminal ducts membranous and very wide in inlet parts, distal parts and spermathecae strongly sclerotized (Fig. 11H).

Stenaelurillus sudanicus n. sp. (Figs 12; 16D)

Type Material. — **Holotype.** Sudan, Northern province, Kerma, 19°36'N, 30°24'E, in house, I.1989, leg. L. Chaix, 1 \, (MHN).

DIAGNOSIS. — This species has a distinctive epigyne, with very large pocket and copulatory openings situated at posterior edge of epigyne. Tibia of female palp darker than other segments, contrasting.

ETYMOLOGY. — The species is named after its *terra typica* (Sudan).

DISTRIBUTION. — Known only from the type locality.

DESCRIPTION

Measurements

Cephalothorax: length 2.2, width 1.7, height 0.9. Abdomen: length 2.5, width 1.9. Eye field: length 0.7, anterior and posterior width 1.2.

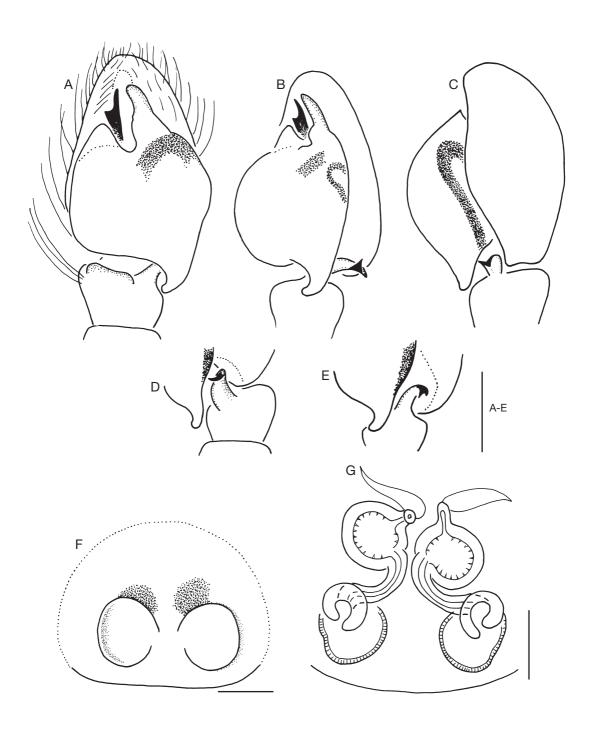


Fig. 14. — *Stenaelurillus zambiensis* n. sp., male (holotype) and female (paratype): **A**, palpal organ, ventral view; **B**, palpal organ, ventrolateral view; **C**, palpal organ, lateral view; **D**, **E**, palpal tibia; **F**, epigyne; **G**, internal structure of epigyne. Scale bars: A-E, 0.3 mm; F, G, 0.1 mm.

Male Unknown.

Female

General appearance as in Fig. 16D. Carapace brown with darker eye field, two pairs of wide white streaks, first along lateral margins and second starting from anterior lateral eyes and extending to posterior edge of carapace. Thoracic part clothed in brown hairs, short rod bristles on anterior part of eye field. Anterior eyes surrounded by small fawn scales from above and white from below. Chelicerae light brown, unidentate, with very small retrolateral tooth. Labium and endites orange, sternum dark yellow. Clypeus low, brownish. Abdomen with striped pattern typical for *Phlegra* sp., three wide whitish bands on black background (Fig. 16D), dorsum covered with dense short hairs, their colouration according with blackground. Venter light, sides with dark marks. Ventral surface of body covered with dense light hairs. Spinnerets long, yellow with black tips. Legs orange, their hairs light, dense. Spines numerous, light. Palps yellow, but last segment brown, contrasting. Epigyne with single deep pocket, copulatory openings placed laterally, at posterior epigynal edge (Fig. 12B). Internal structure as Fig. 12C, seminal ducts wide, spermathecae spherical.

Stenaelurillus uniguttatus Lessert, 1925 (Fig. 13)

Stenaelurillus uniguttatus Lessert, 1925: 478, figs 64, 65.

MATERIAL EXAMINED. — **Holotype**. Kenya, Kibonoto, 3°11'S, 37°6'E, zone res. cultures, leg. Sjöstedt, 1 σ (NR); one palp from the same specimen (MHN).

DIAGNOSIS. — The male is easily distinguished from other members of the genus by abdominal pattern with transverse brilliant zone, except *S. darwini*, from which differs in palp structure; long bristles on tibia stretch in *S. darwini* to half of cymbium length, but they hang down in *S. uniguttatus*.

DISTRIBUTION. — Known only from Kilimanjaro massif.

REDESCRIPTION

Measurements

Cephalothorax: length 2.5, width 1.9, height 1.0. Abdomen: length 2.6, width 1.7. Eye field: length 1.0, anterior width 1.6, posterior width 1.4.

Male

Shape of body typical for the members of the genus. Specimen slightly bleached, carapace brownish with traces of lighter streaks on thoracic part, brown bristles on eye field. Mouth part light brown. Abdomen with characteristic pattern; generally velutinous black, but with broad transverse reflecting fillet in mid length of abdomen, single rounded light patch in anterior half. Venter light. Legs yellowish, their hairs and spines brown. Pedipalps as in Fig. 13A-C; embolus with accompanying hooked structure and long, thin, pointed, membranous terminal apophysis (Fig. 13D). Retrolateral tibial apophysis small; retrolateral side of tibia ornamented with long, black, feather-shaped hairs; tuft of same hairs on tip of dorsal apophysis towards tibial base (Fig. 13B, C). Femur of palp with small bump (Fig. 13E).

Female Unknown.

Stenaelurillus zambiensis n. sp. (Fig. 14)

Type Material. — **Holotype.** Zambia, SW from Mfuwe, 13°07'S, 31°45'E, 20-22.III.1995, leg. W. Puławski, 1 & (CAS).

Paratypes. Zimbabwe, Mana Pools National Park, 15°45'S, 29°20'E, 4.V.1984, 2 ♂♂ (NMZ/A 2468); same data, 2 ♀♀ (NMZ/A 2469).

DIAGNOSIS. — The male is distinguished from congeners by the broad tegulum, bicuspid embolus and characteristic tibial apophysis with folded down tip. The female is distinctive in having an epigyne with two large rounded depressions and thinner than in congeners seminal ducts.

ETYMOLOGY. — The species in named after its *terra typica* (Zambia).

DISTRIBUTION. — Known from Zambia and northern Zimbabwe.

DESCRIPTION

Measurements (male/female)

Cephalothorax: length 2.6-2.7/3.0-3.2, width 1.9-2.0/2.2-2.4, height 1.0-1.1/1.0-1.2. Abdomen: length 2.6-2.8/3.1-4.0, width 1.9-2.1/2.7-3.0. Eye



Fig. 15. — Stenaelurillus hirsutus Lessert, 1927: **A**, male, dorsolateral view; **B**, male, lateral view; **C**, male, frontal view; **D**, female, dorsal view. Scale bars: 1.0 mm.

field: length 0.8-0.9/1.0, anterior width 1.4-1.5/1.6, posterior width 1.5/1.6.

Male

Carapace pear-shaped, brown, darkening at margins, clothed in dense brown hairs, poorly contrasted traces of pair of whitish streaks on thoracic part. Eye field black with intensive metallic lustre, covered with long brown bristles in anterior part, among them short thick setae, anterior eyes encircled by small fawn scales. Clypeus very dark. Chelicerae brown. Labium and endites yellow, sternum yellow to light brownish. Abdomen oval, brownish black, covered by scutum occupying two thirds of its length, with strong metallic lustre, anterior edge

clothed in long dense blackish bristles. Venter yellowish. Spinnerets long, yellowish, their tips black. Legs brown. Pedipalps yellowish grey, clothed in dense light hairs, only tip of cymbium with brown hairs. Palpal organ as in Fig. 14A-C; bulb rounded with triangular posterior lobe; embolus straight, bicuspid; tegular apophysis membranous, large; tibial apophysis almost perpendicular to tibia, with folded down end (Fig. 14D, E).

Female

Larger than male. Carapace brown with pair whitish strips on thoracic part and similar stripes along lateral margins. Hairs covering carapace correspond to background colour cover carapace. Eye field black

with long bristles and thick short rod hairs. Mouth parts as in male. Abdomen oval, anterior edge with shallow notch. Anterior third part of abdomen light, posterior brown with median whitish belt and pair of small round spots. Sides and venter yellowish. Spinnerets long, light, covered with brown hairs. Legs light brown, dark hairs form patches on femora. Epigyne with two large round depressions (Fig. 14F), plugged with waxy secretion. Seminal ducts thin, spermatecae spherical, thick-walled (Fig. 14G).

Nomen dubium

Stenaelurillus giovae Caporiacco, 1936, n. dubium

Stenaelurillus giovae Caporiacco, 1936: 79.

Justification

The species was described from Libya on the basis of immature specimen, its identification is impossible, so the name is considered as *nomen dubium*.

DISCUSSION

The study increases the number of known Stenaelurillus species in Africa to 27; of 21 earlier recorded species one specific name has been synonymized and another one recognized as nomen dubium, simultaneously eight new species has been described. However knowledge of their distribution is rather poor: as many as 17 species are known only from the type locality. Only three species have large geographical range: S. guttiger (Simon, 1901) in southern-west Africa, S. hirsutus in equatorial zone from Senegal in the West to Tanzania in the East, and S. nigricaudus in northern-west part of the continent. On the other hand it seems that some species have very limited ranges, e.g., S. natalensis Haddad & Wesołowska, 2006 occurs only in small area in western part of KwaZulu-Natal Province in South Africa. Members of the genus have diverse (varied) palpal structure. Some species – apart from retrolateral tibial apophysis – have large dorsal process with showy long flattened black bristles (S. albopunctatus, S. darwini, S. fuscatus,

S. leucogrammus, S. uniguttatus), similar to that in some species of *Langelurillus* Próchniewicz, 1994. Males of few species are ornamented by very dense, long hairs forming punk pelage on eye field and/or brushes on lateral edge of carapace in its anterior part (S. hirsutus, S. iubatus Wesołowska & Russell-Smith, 2011, S. pilosus Wesołowska & Russell-Smith, 2011, S. pecten n. sp., S. striolatus Wesołowska & Russell-Smith, 2011). Unfortunately, these ornamentation composed of hairs easily rubs off and many specimens are without setae. Structure of epigyne is rather simple, but some species have epigynal pocket placed centrally (S. furcatus n. sp., guttiger, natalensis) or at posterior epigynal edge (S. iubatus, S. sudanicus n. sp., S. uniguttatus), whereas in other species such pocket is absent. One species (S. darwini) has unique epigyne with copulatory openings placed on semispherical monticules. Data about morphological features demand further studies and maybe would provide useful material to explanation of relationships among species.

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REFERENCES

BERLAND L. & MILLOT J. 1941. — Les araignées de l'Afrique occidentale française. I. Les Salticides. *Mémoires du Muséum d'Histoire naturelle* 12: 297-424.
CAPORIACCO L. DI 1936. — Aracnidi fezzanesi raccolti dal prof. G. Scortecci nel 1934-XII. (Missione della R. Società geografica). *Atti della Società Italiana di Scienze Naturali*, Milano 75: 67-93.

DIPPENAAR-SCHOEMAN A. S. & JOCQUÉ R. 1997. — *African spiders. An identification manual.* Plant Protection Research Institute, Pretoria, Handbook 9, 392 p.

LESSERT R. DE. 1925. — Araignées du Kilimandjaro et du Merou (suite). 5. Salticidae. Revue suisse de

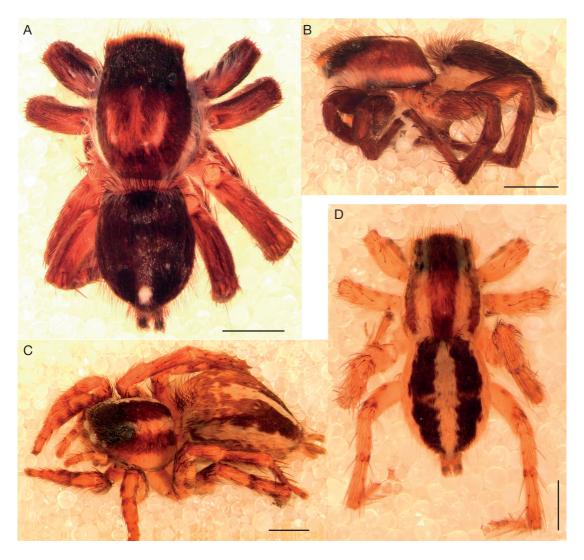


Fig. 16. — Stenaelurillus pecten n. sp. and S. sudanicus n. sp.: A, S. pecten n. sp., male, paratype, dorsal view; **B**, S. pecten n. sp., male, paratype, lateral view; **C**, S. pecten n. sp., female, paratype, dorsolateral view; **D**, S. sudanicus n. sp., female, holotype, lateral view. Scale bars: 1.0 mm.

zoologie 31: 429-528.

LESSERT R. DE. 1927. — Araignées du Congo I. Revue suisse de zoologie 34: 405-475.

PLATNICK N. I. 2014. — The world spider catalog. version 15. http://research.amnh.org/iz/spiders/catalog

PROSZYNSKI J. 1984. — Atlas rysunków diagnostycznych mniej znanych Salticidae. Wyższa Szkoła Rolniczo-Pedagogiczna, Siedlce, 177 p.

PROSZYNSKI J. 2013. — Monograph of Salticidae (Araneae) of the World. version 10th May 2013. http://www.peckhamia.com/salticidae/

SIMON E. 1886. — Études arachnologiques. 18^e Mémoire. XXVI. Matériaux pour servir à la faune des Arachnides du Sénégal. *Annales de la Société entomologique de France*, Paris (6) 5: 345-396.

SIMON E. 1902. — Description d'arachnides nouveaux de la famille des Salticidae (Attidae) (suite). *Annales de la Société entomologique de Belgique* 46: 24-56, 363-406.

SIMON E. 1901-1903. — Histoire naturelle des araignées. Vol. 2, Paris: 381-1080.

SZÜTS T. & SCHARFF N. 2005. — Redescriptions of little

- known jumping spider genera (Araneae: Salticidae) from West Africa. *Acta Zoologica Academiae scientarum Hungarice* 51: 357-378.
- WESOŁOWSKA W. 2013. A review of the Asian species of the jumping spider genus *Stenaelurillus* (Araneae: Salticidae). *Oriental Insects* 47 (4): 246-254.
- WESOŁOWSKA W. & RUSSELL-SMITH A. 2000. Jumping spiders from Mkomazi Game Reserve in Tanzania
- (Araneae: Salticidae). Tropical Zoology 13: 11-127.
- WESOŁOWSKA W. & CUMMING M. S. 2011. New species and records of jumping spiders (Araneae, Salticidae) from Sengwa Wildlife Area in Zimbabwe. *Journal of Afrotropical Zoology* 7: 75-104.
- WESOŁOWSKA W. & RUSSELL-SMITH A. 2011. Jumping spiders (Araneae: Salticidae) from southern Nigeria. Annales zoologici 61: 553-619.

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